

## SERVICE PROCEDURE FOR INSTALLING:

### KIT PART NUMBER

### KIT DESCRIPTION

S4112109-001

Kit, Suction System Piping - DISS Body

S4112109-002

Kit, Suction System Piping - DISS Nut

S4112029-003

Kit, Suction System Piping - NIST Body

### INSTALLATION PROCEDURE

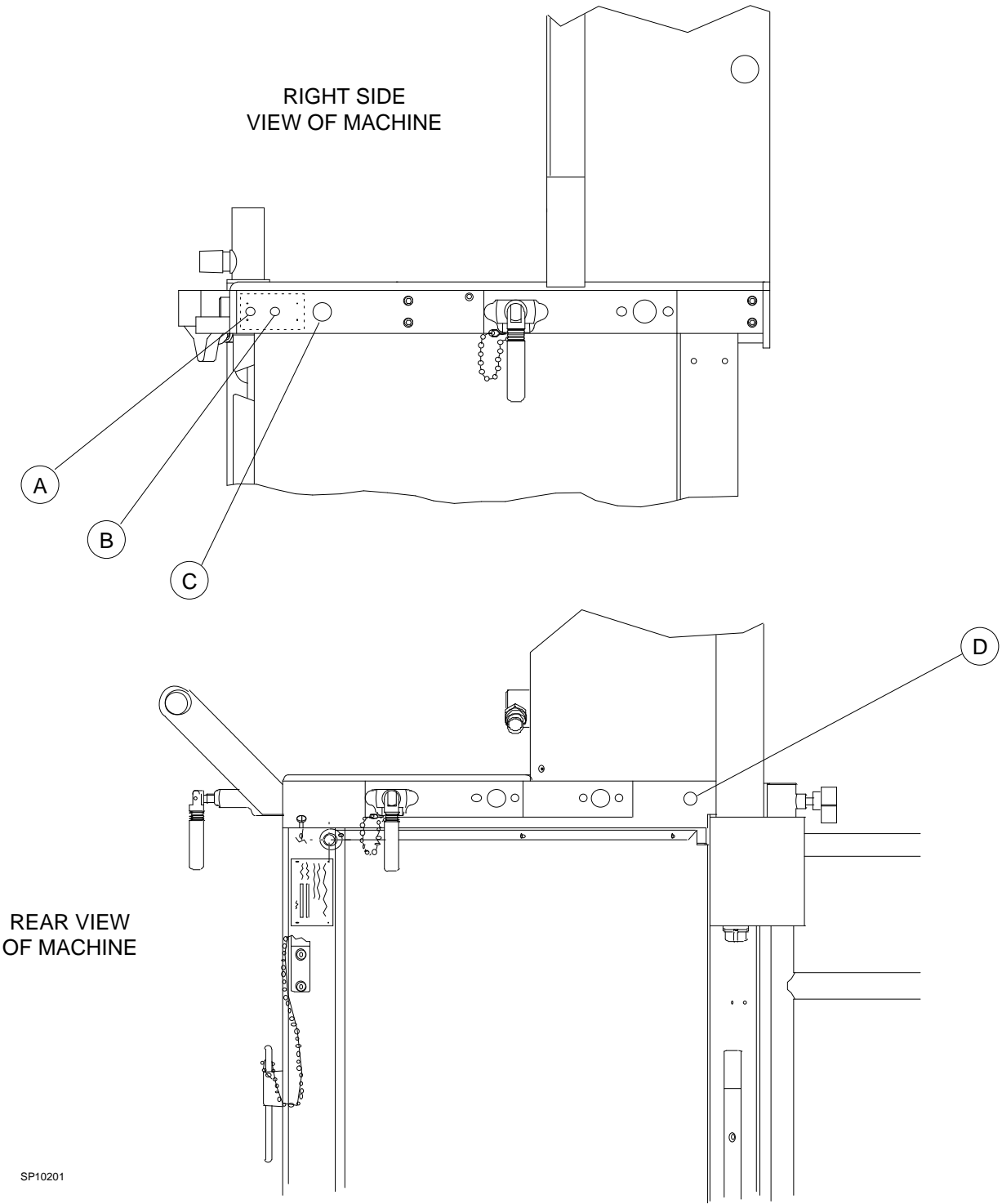
1. Turn the System Power switch to STANDBY, and remove AC power from the machine.
2. Close all cylinder valves and disconnect the pipeline supplies.
3. Remove the table top from the machine.
4. Remove the back cover from the flowmeter housing.
5. Remove the hole plugs from locations **A**, **B**, **C** and **D** on the machine as shown in Figure 1. (Some machines may not have the two small plugs.)
6. Install the vacuum label (P/N 4108447) on the side rail of the machine with four drive screws (P/N HW11000).
7. Install a DISS vacuum feedthru fitting (P/N 4107958) at the hole in the side rail of the machine, and secure it with a lockwasher (P/N HW65012) and  $\frac{5}{8}$ -18 nut (P/N HW52002) as shown in Figure 2.

8. **For Kit S4112109-001:**  
Install the DISS vacuum feedthru fitting (P/N 4107958) into the hole in the back rail of the machine, and secure it with a lockwasher (P/N HW65012) and  $\frac{5}{8}$ -18 nut (P/N HW52002) as shown in Figure 2.

**For Kit S4112109-002:**  
Install the  $\frac{1}{4}$  NPTF x  $\frac{5}{8}$ -18 adapter (P/N 4103915) into the hole in the back rail of the machine and secure the adapter with a lockwasher (P/N HW65012) and  $\frac{5}{8}$ -18 nut (P/N HW52002) as shown in Figure 2. Assemble the DISS nut (P/N 4103122) and DISS vacuum female fitting (P/N 4103878), and thread the fitting into the adapter. Use a small amount of Locquic Primer T #747 and Loctite #271 (red) on the threads.

**For Kit 4112109-003:**  
Install the N.I.S.T. vacuum male connector (P/N 4110389) into the hole in the back rail of the machine and secure the connector with a lockwasher (P/N HW65012) and  $\frac{5}{8}$ -18 nut (P/N HW52002) as shown in Figure 2.

**INSTALLATION PROCEDURE (continued)**



SP10201

**Figure 1: LOCATION OF HOLE PLUGS**

INSTALLATION PROCEDURE (continued)

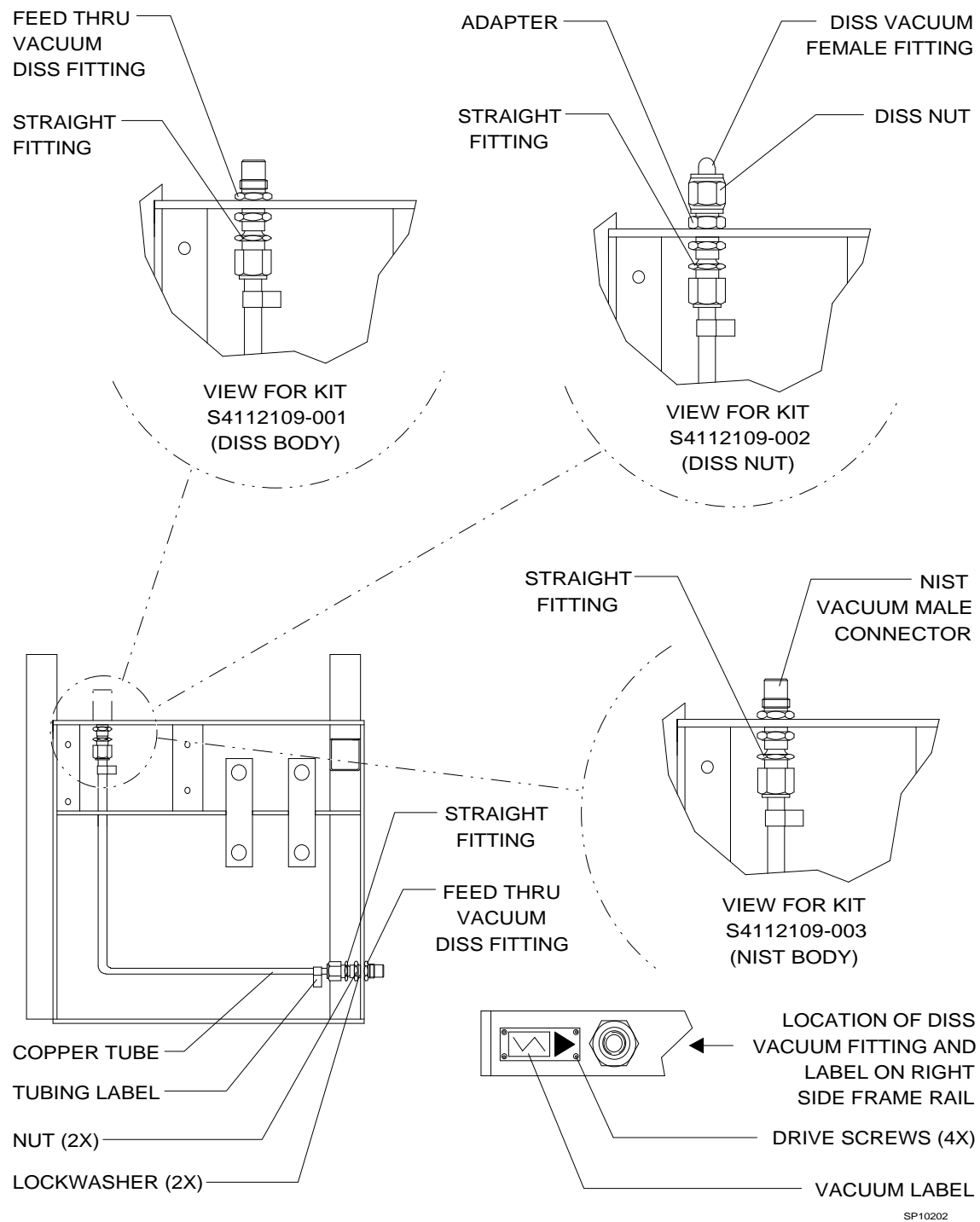


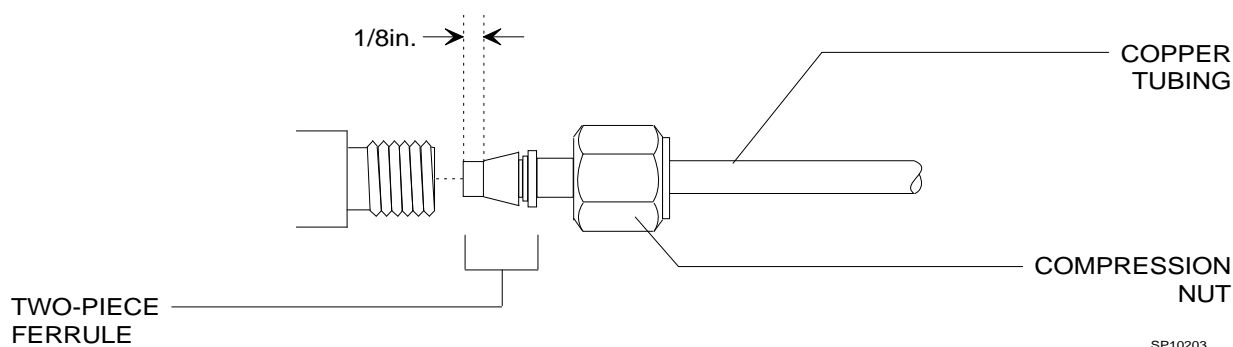
Figure 2: SUCTION SYSTEM PIPING INSTALLATION

## INSTALLATION PROCEDURE (continued)

9. Thread a  $\frac{1}{4}$  in. tube x  $\frac{1}{8}$  MPT straight fitting into the back of each feedthru fitting or connector. Use a small amount of Loctite #271 (red) on the threads.
10. Install a  $\frac{1}{4}$  in. dia. copper tube (P/N 4103919) between the straight fittings.

Ensure that the tube is routed correctly under the inner frame rail as shown in Figure 2, and ensure that the Swagelok fittings are correctly assembled at the tube ends before tightening the compression nuts. See Figure 3.

11. Install a VAC label (P/N 4112127) at each end of the tube.



**Figure 3: ASSEMBLY OF SWAGELOK FITTINGS**

12. Connect a test fixture with a cm H<sub>2</sub>O gauge and squeeze bulb to one end of the vacuum fittings. Occlude the other fitting and pressurize the piping to 50 cm H<sub>2</sub>O. The pressure shall not drop more than 10 cm H<sub>2</sub>O per minute.
13. Reinstall the table top, and reinstall the flowmeter housing back cover.
14. Perform a complete PMS on the machine.



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